

### **REMARKS**

Upon review of the rather extensive prosecution history of the present application, it has been determined that certain claim revisions are in order to define various aspects of the present invention with greater particularity and to narrow the issues for consideration. Accordingly, claims 14-19 have been canceled without prejudice or disclaimer and independent claims 1, 3, 20 and 21 have been amended to define certain aspects of the present invention with greater precision. More specifically, claims 1 and 20 have been amended to recite, *inter alia*, that the hydrophilic reducing organic compound is kneaded with a hydrophilic and water insoluble thermoplastic resin wherein the hydrophilic and water insoluble resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and that such needed material is then kneaded with and dispersed in a hydrophobic thermoplastic resin.<sup>1</sup>

This defined aspect of the present invention, which is supported by the specification such as in the first paragraph on page 12, provides significant advantages which are nowhere appreciated in the prior art. That is, as is evident from the specification and as explicitly stated in paragraph 8. of the Declaration Under 37 C.F.R. § 1.132 dated July 11, 2000, by kneading a hydrophilic reducing organic compound and water insoluble thermoplastic resin before dispersal in the hydrophobic thermoplastic resin, the hydrophilic reducing organic compound does not absorb oxygen and suffer depletion unless water is present. In this respect, the Declaration further shows that if all the components are mixed together, the hydrophilic reducing organic compound absorbs oxygen without the presence of water and can therefore be depleted before it is intended to be used. Thus, it is without

---

<sup>1</sup> Claims 3 and 21 additionally include the presence of a porous inorganic compound.

question that the present invention enables superior results to be obtained compared to the prior art.

The present Amendment also provides new claims 22 and 23 which relate to additional aspects of the invention which are supported by the specification, such as on page 12, lines 7-8 and page 6, lines 8-13, respectively and new claims 24-31 which relate to a "pellet" having recitations similar to those found in claims 1-8 and such new claims are likewise believed to be patentable over the cited prior art.<sup>2</sup> While claims 24-31 have been added to relate to the pellets described in the specification, applicants believe that the statement on page 3 of the Official Action dated June 28, 2001, is incorrect. In particular, the Examiner questioned the applicability of evidence relating to a particle (pellet) and the claimed resin composition and film. As is evident from the foregoing discussion, it is the particular relationship between the hydrophilic reducing organic compound kneaded with the hydrophilic and water insoluble thermoplastic resin which is then kneaded with the hydrophobic thermoplastic resin which provides the substantial advantages which can be obtained in accordance with the present invention and not the particular configuration thereof. In this regard, an additional Declaration Under 37 C.F.R. § 1.132 is currently being prepared and will be submitted. While applicants sincerely maintain that the claims of record are patentable over the cited prior art even without the new Declaration, should the Examiner reach the instant Continued Prosecution Application for examination prior to its submission, the Examiner is respectfully requested to contact the undersigned attorney at the number provided below.

---

<sup>2</sup> As a minor matter, dependent claim 11 has been amended to clarify that the water insoluble thermoplastic resin is of the innermost layer consistent with the description provided in the paragraph bridging pages 9 and 10 of the specification.

As to the Examiner's additional statement concerning the temperature at which the dispersal in the hydrophobic thermoplastic resin occurs, it will be noted from the discussion provided on page 8, lines 11-18 that the noted temperature constitutes a preferred aspect of the invention. It is of course not necessary for the claims in an application to specifically recite the preferred embodiments, especially in the present situation where the evidence of record provides comparative and reference examples that are prepared under the same temperature conditions.<sup>3</sup> The important aspects of the present invention are how certain defined components are dispersed in others, which is nowhere recognized in the art, and the claims recite this specific relationship. Therefore, applicants respectfully submit that the extensive evidence that has been provided in the present application clearly supports the patentability of the invention.

Should the Examiner wish to discuss any aspect of the present application, he is invited to contact the undersigned attorney at the number provided below.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: 

Robert G. Mukai  
Registration No. 28,531

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620

Date: April 29, 2002

---

<sup>3</sup> See, e.g., In re Anderson, 176 USPQ 331 (CCPA 1973) where the court held that where there are examples of preferred embodiments and best mode contemplated (relating to a laminated dressing), the claims could not be limited to specific examples where there is a clear disclosure of a broader invention and In re Dinh-Nguyen et al, 181 USPQ 46 (CCPA 1974) where the court held that it was an unnecessary limitation to require the claims to recite specific proportions employed in Examples to ensure activity of catalyst.



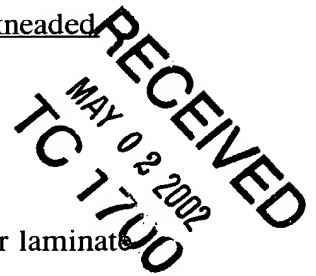
**Attachment to Preliminary Amendment Dated April 29, 2002**

**Marked-up Claims 1, 3, 11, 20 and 21**

1. (Thrice Amended) A resin composition to be used in a multi-layer laminate for storing liquid foods, comprising a hydrophilic reducing organic compound kneaded with a hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic and water insoluble resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and [a hydrophobic thermoplastic resin,] wherein the kneaded hydrophilic reducing organic compound and the water insoluble thermoplastic resin [is] are kneaded with and dispersed in [the] a hydrophobic thermoplastic resin.

3. (Thrice Amended) A resin composition to be used in a multi-layer laminate for storing liquid foods, comprising a hydrophilic reducing organic compound kneaded with a porous inorganic compound, and a hydrophilic and water insoluble thermoplastic resin, wherein the hydrophilic and water insoluble thermoplastic resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and [a hydrophobic thermoplastic resin,] wherein the kneaded hydrophilic reducing organic compound, the porous inorganic compound and the water insoluble thermoplastic resin [is] are kneaded with and dispersed in [the] a hydrophobic thermoplastic resin.

11. (Amended) The laminate for packaging liquid foods of Claim 10, in which the hydrophilic and water insoluble thermoplastic resin of the innermost layer comprises ethylene-vinyl alcohol copolymer or polyvinyl alcohol having a saponification degree of 95% or higher.



**Attachment to Preliminary Amendment Dated April 29, 2002**

**Marked-up Claims 1, 3, 11, 20 and 21**

20. (Twice Amended) A method of producing a resin composition to be used in a multi-layer laminate for packaging liquid foods, comprising the steps of kneading a hydrophilic reducing organic compound and a hydrophilic and water insoluble thermoplastic resin compound, at a temperature not higher than the melting point or decomposition point of the hydrophilic reducing organic compound and not lower than the melting temperature of the hydrophilic and water insoluble thermoplastic resin, to make a kneaded compound, wherein the hydrophilic and water insoluble resin provides an oxygen gas barrier for the hydrophilic reducing organic compound and dispersing the kneaded compound in a hydrophobic thermoplastic resin.

21. (Twice Amended) A method of producing a resin composition to be used in a multi-layer laminate for packaging liquid foods, comprising the steps of kneading a hydrophilic reducing organic compound[, at a temperature not higher than the melting point or decomposition point of the hydrophilic reducing organic compound and not lower than the melting temperature of the hydrophilic and water insoluble thermoplastic resin], a porous inorganic compound, and a hydrophilic and water insoluble thermoplastic resin compound, wherein the hydrophilic and water insoluble thermoplastic resin provides an oxygen gas barrier for the hydrophilic reducing organic compound to make a kneaded compound, and dispersing the kneaded compound in a hydrophobic thermoplastic resin.